(19) World Intellectual Property **Organization**

International Bureau



(43) International Publication Date 6 January 2005 (06.01.2005)

PCT

(10) International Publication Number WO 2005/000120 A3

(51) International Patent Classification7:

G01T 1/164

(21) International Application Number:

PCT/IB2004/001936

(22) International Filing Date:

1 June 2004 (01.06.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/483,523

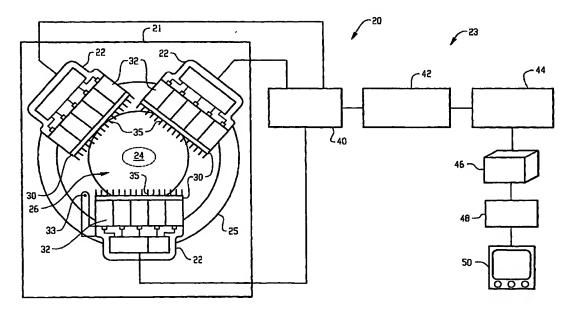
27 June 2003 (27.06.2003)

- (71) Applicant (for all designated States except US): KONIN-KLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): WELLNITZ, Donald [US/US]; 595 Miner Road, Cleveland, Ohio 44143 (US). GEAGAN, Michael [US/US]; 595 Miner Road, Cleveland, Ohio 44143 (US). MARTIN, Steve [US/US]; 595 Miner Road, Cleveland, Ohio 44143 (US).

- (74) Common Representative: KONINKLIJKE PHILIPS ELECTRONICS N.V.; C/O SERRA, Wayne, M., 595 Miner Road, Cleveland, Ohio 44143 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM. TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: PMT SIGNAL CORRELATION FILTER



(57) Abstract: A method of generating a filter (40) for a nuclear medicine system (20) where the filter selects valid detected radiation events for image processing. A dataset (60) is provided that is indicative of a plurality of emitted radiation events occurring over a predetermined period of time. Signals representative of the response of a detector to the dataset of the plurality of emitted radiation events are generated. A pattern is determined (66) based on a correlation of a plurality of signals resulting from the response of the detector to a plurality of single radiation events in the dataset. A filter is generated (74) based on the correlation pattern. A method and apparatus of using the generated filter is also disclosed.



WO 2005/000120 A3



Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report: 17 February 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.